

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **10099806 A**

(43) Date of publication of application: **21.04.98**

(51) Int. Cl.

B08B 7/00
B01D 11/00
H01L 21/304
// C11D 7/50

(21) Application number: **09199998**

(22) Date of filing: **25.07.97**

(30) Priority: **25.07.96 US 96 22811**

(71) Applicant: **TEXAS INSTR INC <TI>**

(72) Inventor: **DOUGLAS MONTE A**
TEMPLETON ALLEN C

(54) **METHOD FOR REMOVING INORGANIC
POLLUTANT BY CHEMICAL DERIVATION AND
EXTRACTION**

to a container 20 through a pressure-reducing valve 18,
and the pollutants are precipitated.

COPYRIGHT: (C)1998,JPO

(57) Abstract:

PROBLEM TO BE SOLVED: To enable the effective removal of metallic pollutants from a semiconductor wafer by a method in which when inorganic pollutants are removed from the surface of a semiconductor substrate, the pollutants, after being converted by the reaction with a kind of converting agent, are removed by using solvating agent.

SOLUTION: When a semiconductor wafer in which inorganic pollutants exist is cleaned, the wafer is put into a container 16, supercritical fluid (SCF) is sent from a gas storage tank 28 to a storage tank 12 holding a modifying agent through a pressurizing apparatus 34 and a conduit 38, and SCF incorporated with the modifying agent is supplied to the container 16 in the tank 12. Simultaneously with the modification of the pollutants on the wafer by the modifying agent, SCF is sent to the storage tank 14 holding a solvating agent through the conduit 38, and the SCF incorporated with the solvating agent is supplied to the container 16 in the tank 14. In this way, the pollutants are removed from the wafer. The modified pollutants etc., are sent

